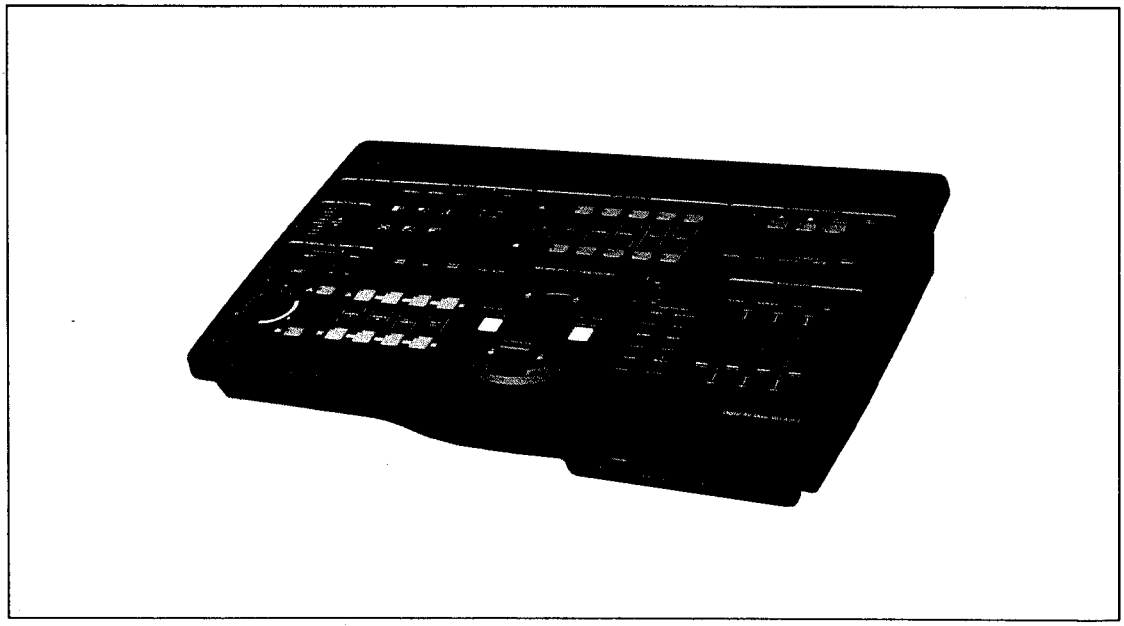
ENGLISH
DEUTSCH
FRANÇAIS
ITALIANO
ESPAÑOL
NEDERLANDS

Operating Instructions

Digital AV Mixer

WJ-AVE7



Panasonic

Before attempting to connect or operate this product, please read these instructions completely

ENGLISH VERSION

Denne model opfylder EF direktiv87/308/EF (for forebyggelse af radiointerferens).

CAUTION:
Before attempting to connect or operte this product, please read the label on the bottom.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK), NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lighthing flash with arrowhead symbol, within an equilateral triangle, is interned to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accom-panying the appliance.

The serial number of this product may be found on the bottom of the unit.
You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. _____

Serial No. _____

For U.K.

FOR YOUR SAFETY PLEASE READ THE FOLLOWING TEXT CAREFULLY.
This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 13 amp fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 13 amp and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark or the BSI mark on the body of the fuse.
If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local Panasonic Dealer.

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY. THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13 AMP SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.
WARNING: This apparatus must be earthed.

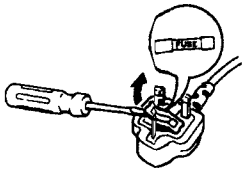
IMPORTANT

The wires in this mains lead are coloured in accordance with the following code.

Blue:	Neutral
Brown:	Live

As the colours of the wire in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured **black.**
The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured **red.**
Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol ⏚.

How to replace the fuse
Open the fuse compartment with a screwdriver and replace the fuse and fuse cover.



This model conforms of the EC directive (for radio interference) 87/308/EEC.

This apparatus was produced to BS 800:1987.

WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CONTENTS

PREFACE 2
MAIN FEATURES 2
PRECAUTIONS 2
MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS 3
SYSTEM CONNECTION 9
BASIC OPERATIONS 11
A. Input Signal Selection and Back Colour Selection 11
B. Video Mix 12
C. Video Wipe 12
D. Picture-In-Picture 17
E. Audio Mix 18
F. Fade 19
G. Audio Follow 21
ADVANCED OPERATIONS 23
A. Colour Correction 23
B. Position Control 24
C. Superimpose Effect 25
D. Digital Effect 27
E. Auto Take 29
F. External/Luminance Key 30
G. Titler 32
WIPE PATTERN TABLE 33
IMPORTANT NOTES ON VIDEO INPUT SIGNAL 35
SPECIFICATIONS 36

ENGLISH

Dear Customer

We would like to take this opportunity to thank you for purchasing a Panasonic Digital AV Mixer.
Please read this Operating Instructions carefully and keep it for later reference, in case you want to see something in the future.

Main Features

- Digital effect - Still, Strobe, Mosaic, Paint, Negative
- Superimpose effect
- 96 wipe patterns
- Back colour
- Joystick control for picture position and colour correction
- Fade control for video and audio
- Audio mixing
- External video titler input
- Two audio/video source inputs
- Two audio/video recording outputs
- External camera input and auxiliary audio input
- Microphone input and headphone output

Preface

The Panasonic Digital AV Mixer WJ-AVE7 produces special video effects using digital processing technology. This unit has multiple functions for mixing video and audio signals, Digital effects, Superimpose, Fade control and many more. A sophisticated audio and video program can be completed using this unit.

Precautions

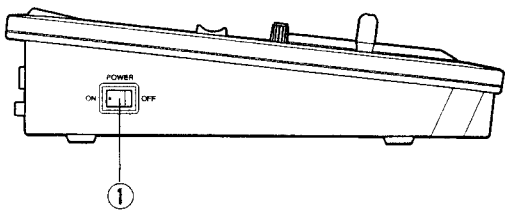
The WJ-AVE7 is a sensitive, high quality product and should be handled as such. Because it is an electrical device, the danger of electric shock exists if it is used carelessly.

DON'T	DO'S
• Do not attempt to disassemble the unit. In order to prevent electric shock, do not remove screws or covers. There are no user-serviceable parts inside.	• Refer all servicing to qualified service personnel.
• Do not abuse the unit. Avoid striking, shaking etc. It could be damaged by improper handling or storage.	• Handle the unit with care.
• Do not use strong or abrasive detergents when cleaning the unit body.	• Use a dry cloth to clean the unit when dirty. In case dirt is hard to remove, use a mild detergent and wipe gently.
• Do not expose the unit to water or moisture, and do not operate it in wet or humid areas.	• Take immediate action if ever the unit should become wet. Turn the power off and refer servicing to qualified service personnel. Moisture can damage the unit and also create the danger of electric shock.
• Do not use the unit in an extreme environment of high temperature or high humidity.	• Use the unit at ambient temperature from 0°C to +40°C and humidity below 90 %.

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS

■ Side View

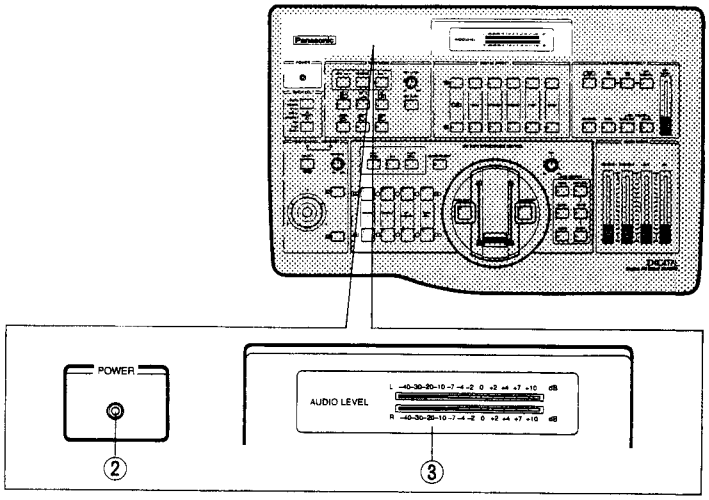
(1) Power Switch (POWER ON/OFF)



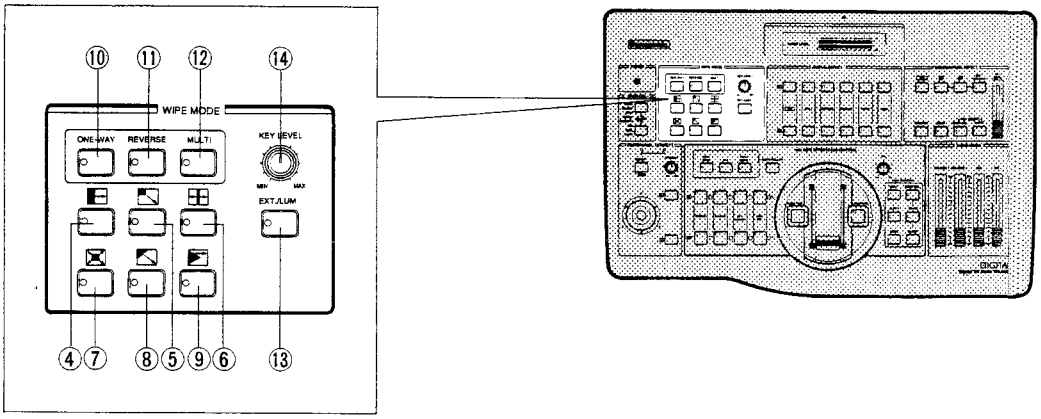
■ Indicator Section

(2) Power Indicator (POWER)

(3) Audio Level Indicator (AUDIO LEVEL)
This indicator shows the audio output level of REC OUT 1 and REC OUT 2 on the rear panel.
Note: REC OUT 1 and REC OUT 2 provide the same audio signal.



■ Wipe Mode Section (WIPE MODE)



(4) Straight Wipe Button

(5) Corner Wipe Button

(6) Split Wipe Button

(7) Square Wipe Button

(8) Diagonal Wipe Button

(9) Triangle Wipe Button

(10) One-way Wipe Button (ONE-WAY)

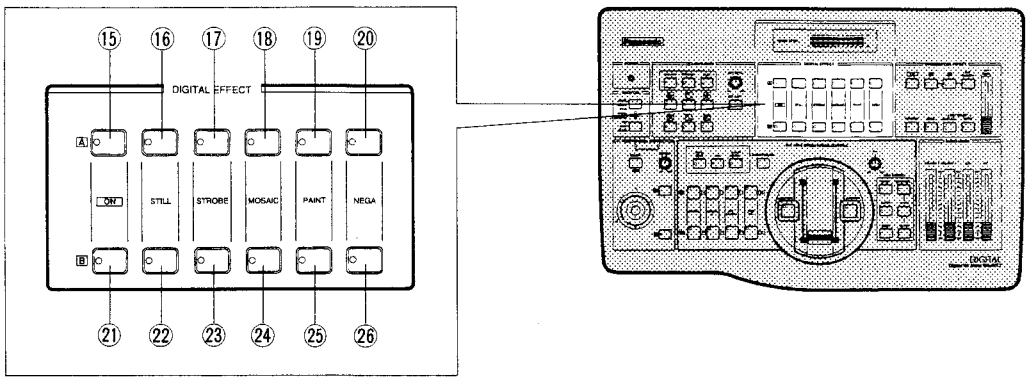
(11) Reverse Wipe Button (REVERSE)

(12) Multiple Wipe Button (MULTI)

(13) External/Luminance Key Button (EXT/LUM)
Used to select either the External Key or the Luminance Key function.

(14) Key Level Control (KEY LEVEL)
For adjusting the External Key Level and Luminance Key Level.

■ Digital Effect Section (DIGITAL EFFECT)



(15) A-bus ON/OFF Button (ON - A)
For adding Digital Effects to the A-bus picture except Back Colour (BACK COL) (42).

(16) Still Button (STILL)

(17) Strobe Button (STROBE)

(18) Mosaic Button (MOSAIC)

(19) Paint Button (PAINT)

(20) Negative Button (NEGA)
Note: Buttons (16) to (20) are for the A-bus.

(21) B-bus ON/OFF Button (ON - B)
For adding Digital Effects to the B-bus picture except Back Colour (BACK COL) (43).

(22) Still Button (STILL)

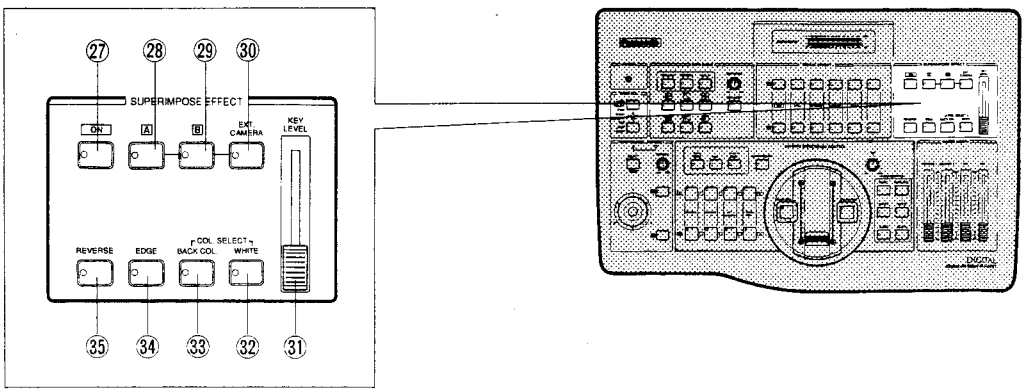
(23) Strobe Button (STROBE)

(24) Mosaic Button (MOSAIC)

(25) Paint Button (PAINT)

(26) Negative Button (NEGA)
Note: Buttons from (22) to (26) are for the B-bus.

■ Superimpose Effect Section (SUPERIMPOSE EFFECT)



(27) Superimpose ON/OFF Button (ON)
For activating the Superimpose Effect function.

(28) A-bus Button (A)
Used to select the A-bus picture as a key signal.

(29) B-bus Button (B)
Used to select the B-bus picture as a key signal.

(30) External Camera Button (EXT CAMERA)
Used to select an external camera picture as a key signal.

(31) Key Level Control (KEY LEVEL)
The key level (slice level) of a superimposed scene can be adjusted.

(32) White Button (COL. SELECT/WHITE)
Used to make a white superimposed scene

(33) Back Colour Button (COL.SELECT/BACK COL.)
Used to add a colour to a superimposed scene.

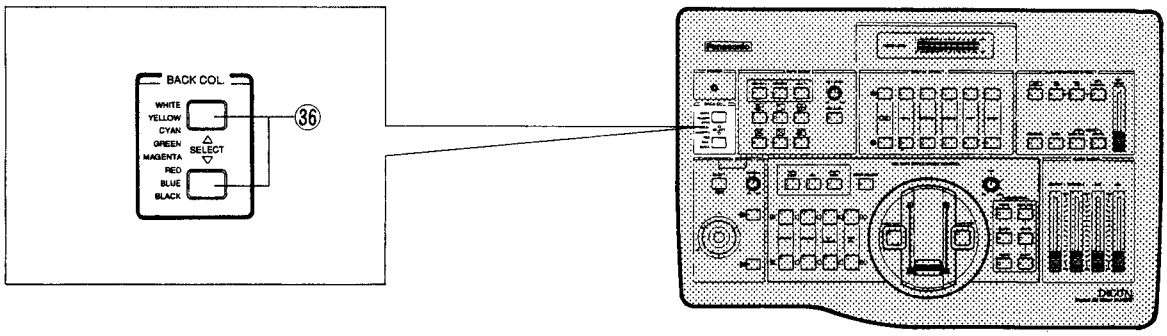
(34) Edge Button (EDGE)
Used to add an edge to a superimposed scene.

(35) Reverse Button (REVERSE)
The superimposed scene and the background scene become opposite in position.

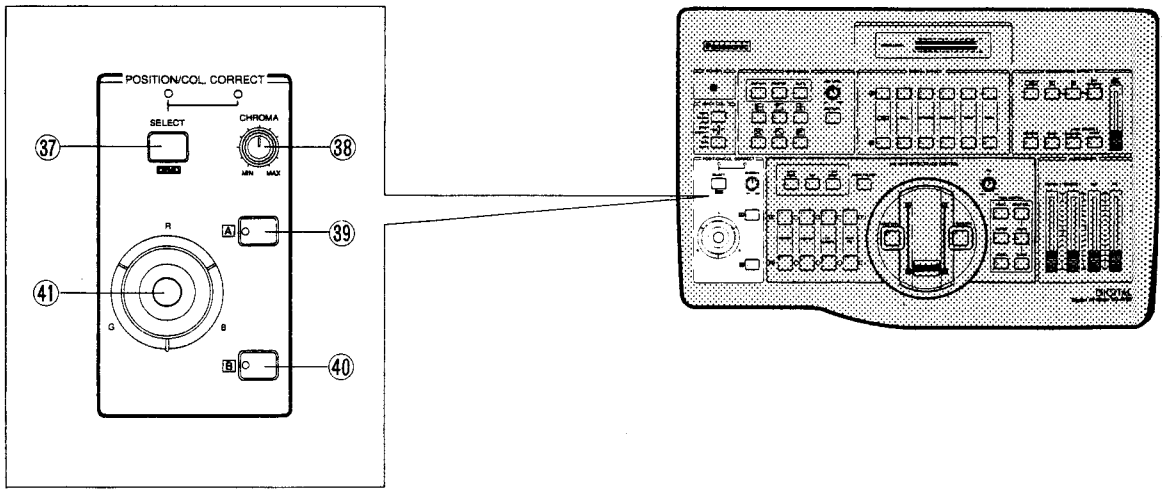
■ Back Colour Section (BACK COL.)

(36) Back Colour Selection Button (BACK COL. SELECT)

A back colour can be selected by pressing either of these buttons.



■ Positioner/Colour Correction Section (POSITION/COL.SELECT)



(37) Positioner/Colour Correction Selection Button (SELECT/DEMO)

Used to select either the POSITION function or COL. CORRECT function. Also used to start the preprogrammed demonstration.

(38) Chroma Level Control (CHROMA)

For adjusting the colour level.

(39) A-bus Button (A)

Colour correction can be made for the A-bus picture except Back Colour (BACK COL) (42)

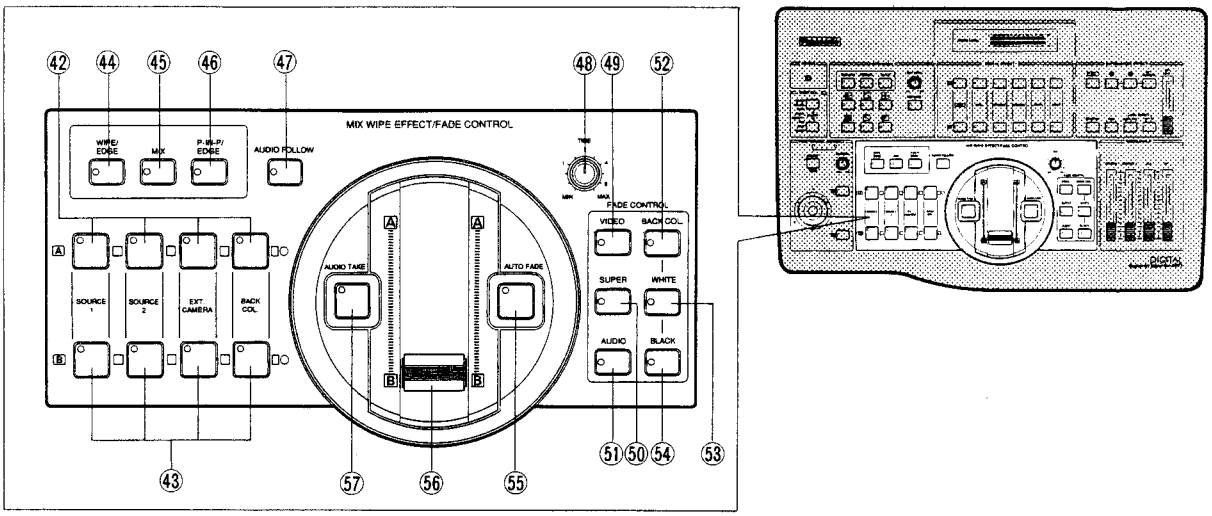
(40) B-bus Button (B)

Colour correction can be made for the B-bus picture except Back Colour (BACK COL) (43).

(41) Joystick Control

This Joystick Control has two functions - setting the position of the Diagonal Wipe Pattern (7)/P-INP Picture (46) and correcting the colour of A-bus/B-bus

■ Mix Wipe Effect/Fade Control Section (MIX WIPE EFFECT/FADE CONTROL)



(42) A-bus Selection Buttons (A)

SOURCE 1:
Used to select Source 1 Audio/Video Signals (66) (67) (68) supplied to the rear panel.

SOURCE 2:
Used to select Source 2 Audio/Video Signals (70) (71) (72) supplied to the rear panel.

EXT CAMERA:
Used to select External Camera Signal (74) (75) supplied to the rear panel.

BACK COL.:
Used to select the Back Colour (36).

(43) B-bus Selection Buttons (B)
Same selection can be available as mentioned in the A-bus Selection Buttons (42).

(44) Wipe Button (WIPE/EDGE)
For selecting the Wipe Effect.

(45) Mix Button (MIX)
For the Mix Effect.

(46) Picture-In-Picture Button (P-IN-P/EDGE)
For the Picture-In-Picture Effect.

(47) Audio Follow Button (AUDIO FOLLOW)
When this button is pressed, the audio on the A-bus and B-bus can be changed according to the relative percentage position of the Mix/Wipe Control (56).

(48) Time Control (TIME)
For adjusting the transition time of Auto Fade Function (55) and Auto Take Function (57).

(49) Video Button (VIDEO)
Used to fade-in/out the video, but not audio.

(50) Superimpose Button (SUPER)
Used to fade-in/out the superimposed picture.

(51) Audio Button (AUDIO)
Used to fade-in/out the audio.

(52) Back Colour Button (BACK COL)
For fading out to the Back Colour scene.

(53) White Button (WHITE)
For fading out to the white scene.

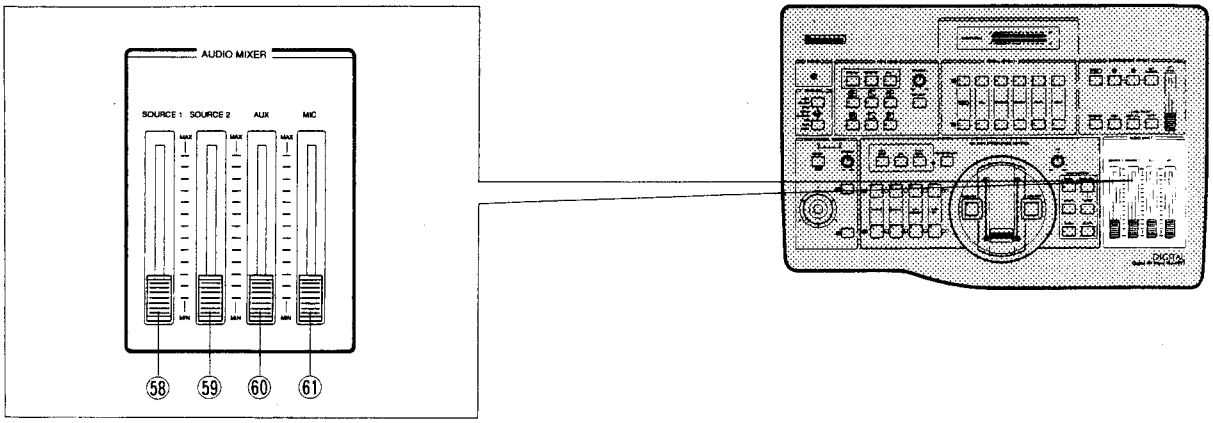
(54) Black Button (BLACK)
For fading out to the black scene.

(55) Auto Fade Button (AUTO FADE)
Automatic fade can be executed according to the time set by TIME Control (48).

(56) Mix/Wipe Control (MIX WIPE EFFECT)
Mix and wipe can be performed by operating this control.

(57) Auto Take Button (AUTO TAKE)
Automatic wipe or mix can be executed according to the time set by TIME Control (48).

■ Audio Mixer Section (AUDIO MIXER)



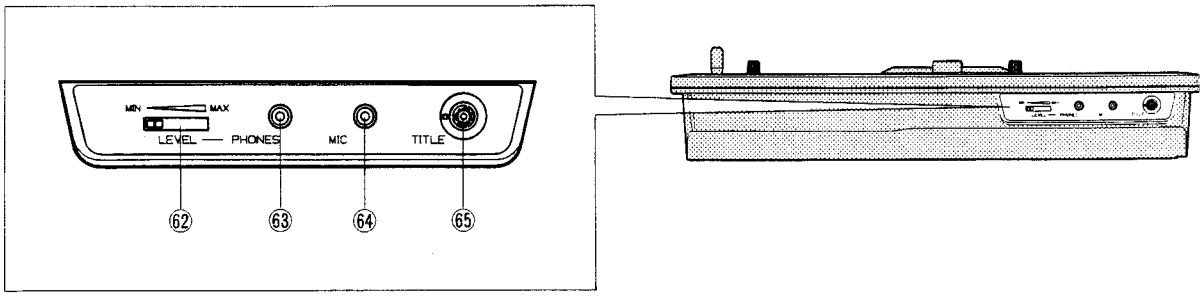
(58) Source 1 Audio Fader (SOURCE 1)
Used to adjust the level of Source 1 Audio Signal supplied to Source 1 Audio Input Jack (66).

(59) Source 2 Audio Fader (SOURCE 2)
Used to adjust the level of Source 2 Audio Signal supplied to Source 2 Audio Input Jack (70).

(60) Auxiliary Audio Fader (AUX)
Used to adjust the level of Auxiliary Audio Signal supplied to Auxiliary Audio Input Jack (76).

(61) Mic Audio Fader (MIC)
Used to adjust the level of Microphone Audio Signal supplied to Microphone Jack (64).

■ Front Panel



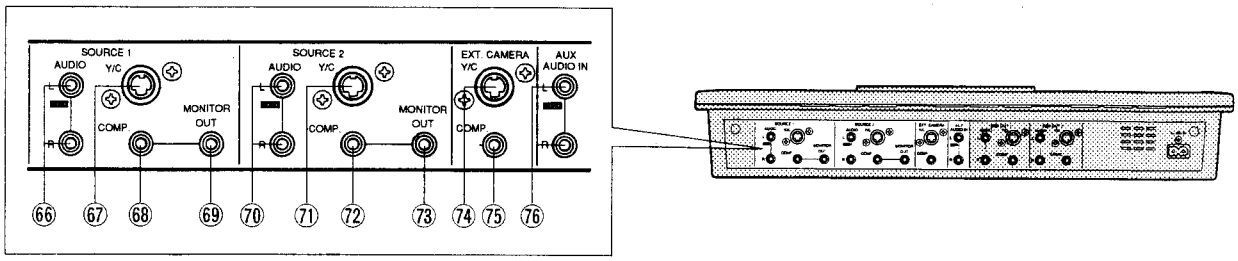
(62) Headphone Audio Level Control (LEVEL)

(63) Headphone Jack (PHONES)

(64) Microphone Jack (MIC)

(65) Titler Connector (TITLE)

■ Rear Panel 1



(66) Source 1 Audio Input Jack (SOURCE 1 AUDIO)

(67) Source 1 S-Video Input Connector (SOURCE 1 Y/C)

(68) Source 1 Composite Video Signal Input Jack (SOURCE 1 COMP.)
For connecting PAL standard video signal.

(69) Source 1 Monitor Output Jack (SOURCE 1 MONITOR OUT)
For monitoring Source 1 Composite Video Signal.

(70) Source 2 Audio Input Jack (SOURCE 2 AUDIO)

(71) Source 2 S-Video Input Connector (SOURCE 2 Y/C)

(72) Source 2 Composite Video Signal Input Jack (SOURCE 2 COMP.)
For connecting PAL standard video signal.

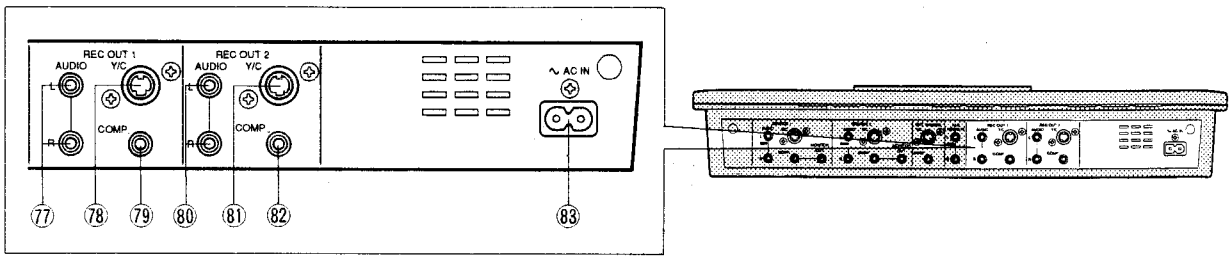
(73) Source 2 Monitor Output Jack (SOURCE 2 MONITOR OUT)
For monitoring Source 2 Composite Video Signal

(74) External Camera S-Video Input Connector (EXT CAMERA Y/C)

(75) External Camera Composite Video Input Jack (EXT CAMERA COMP.)
For connecting PAL standard camera signal.
Notes:
1. If both an S-video signal and a composite video signal are supplied to Source 1 (Source 2 or External Camera) at the same time, only the S-video signal is used as Source 1 (Source 2 or External Camera) input signal.
2. A jittery external camera signal from a VTR, for example, can cause a disturbance in synchronization or colour.

(76) Auxiliary Audio Input Jack (AUX AUDIO IN)

■ Rear Panel 2



(77) Recording Out 1 Audio Output Jack (REC OUT 1 AUDIO)

(78) Recording Out 1 S-Video Output Connector (REC OUT 1 Y/C)

(79) Recording Out 1 Composite Video Output Jack (REC OUT 1 COMP.)

(80) Recording Out 2 Audio Output Jack (REC OUT 2 AUDIO)

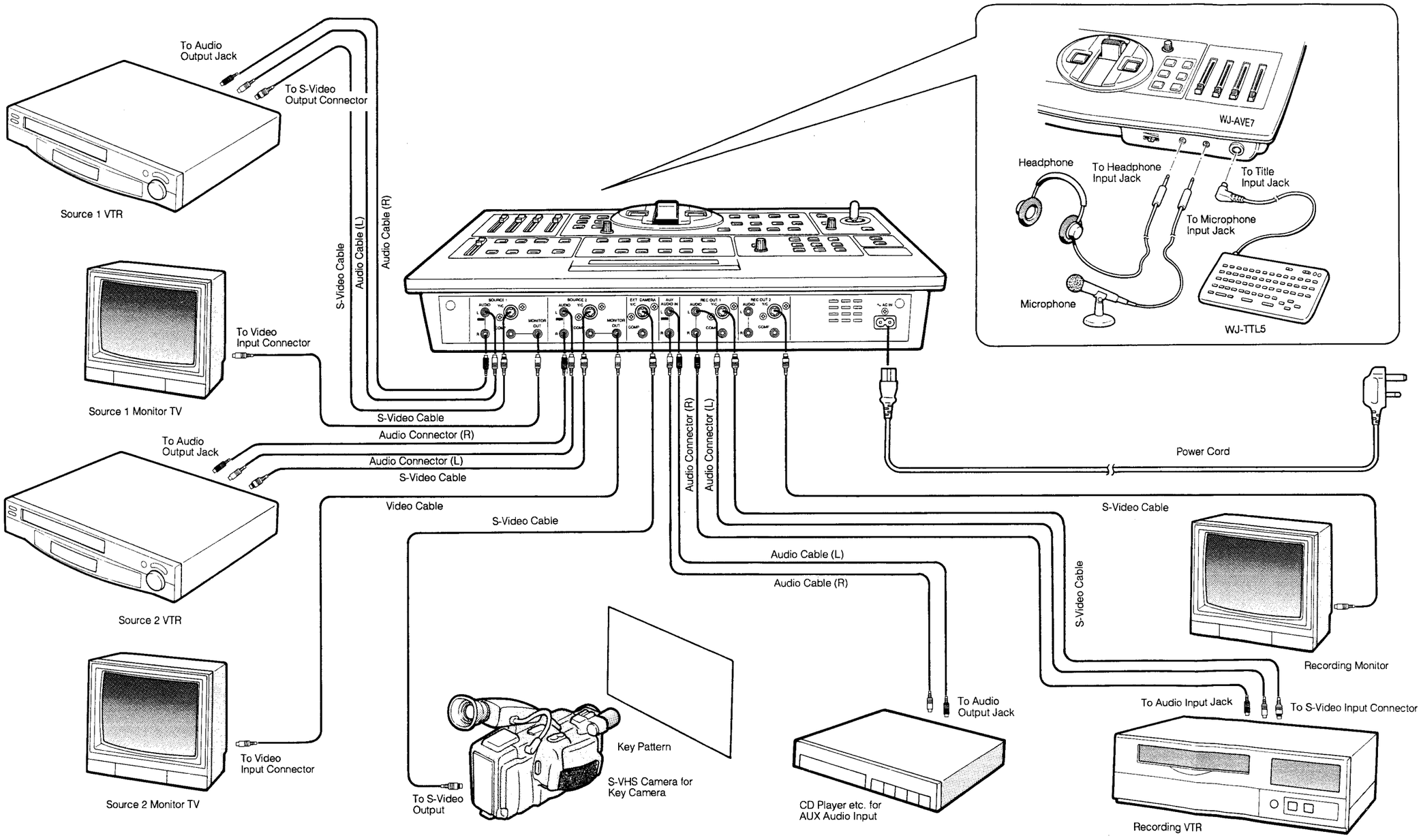
(81) Recording Out 2 S-Video Output Connector (REC OUT 2 Y/C)

(82) Recording Out 2 Composite Video Output Jack (REC OUT 2 COMP.)
Note: The same audio and video signals are supplied to both Recording Out 1 and Recording Out 2.

(83) Power Socket (AC IN)
Connect the Power Cord (provided) to this socket.

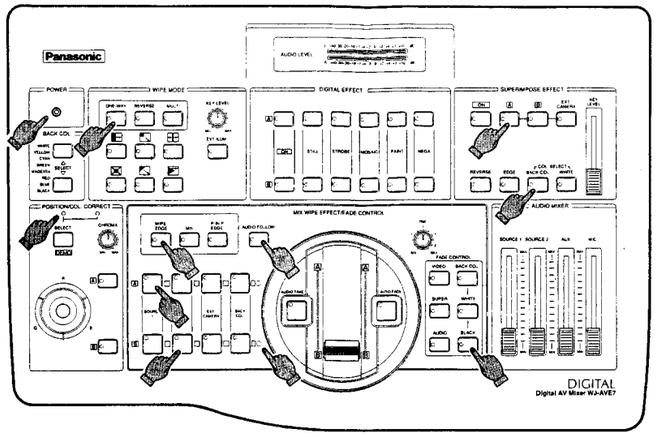
SYSTEM CONNECTION

The following connections must be made to use the WJ-AVE7 and other necessary devices to produce programs. Turn off the power of these units before connecting them.



BASIC OPERATIONS

Press the power switch on the side panel to the ON position. The LED's on the operation panel light up as shown and the unit is now in initial mode for operation.



A. Input Signal Selection and Back Colour Selection

1 Slide the Mix/Wipe Control to the A-bus position.

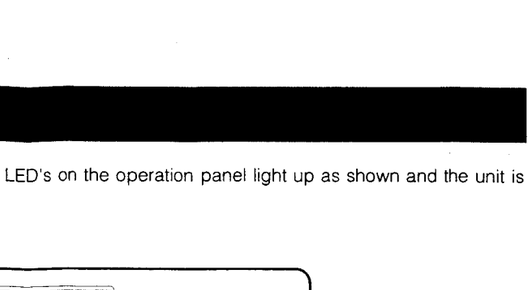
The Mix/Wipe LED's light or blink according to the position of the Mix/Wipe Control.

2 Press any of the SOURCE 1, SOURCE 2, EXT CAMERA and BACK COL. buttons.

You will see each picture on the screen.

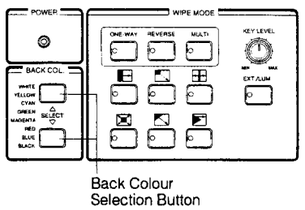
3 Press a BACK COL. button.

The LED on the other button, which was selected last time, starts blinking.

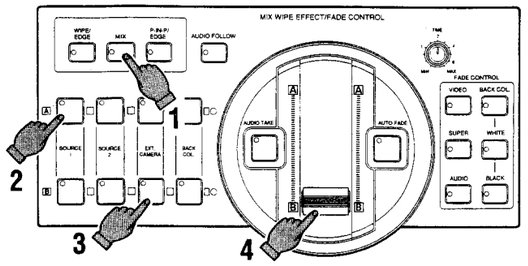


Note: Any of the 8 back colours - White, Yellow, Cyan, Green, Magenta, Red, Blue and Black - can be selected by repeatedly pressing either of the Back Colour Selection Buttons.

The same procedures apply to the B-bus.



B. Video Mix



Reset the operation panel to initial mode.

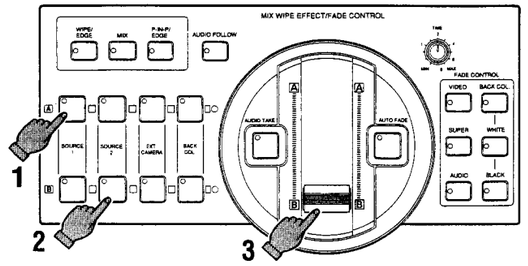
1 Press the MIX button.

2 Press one of the A-bus Selection Buttons.

3 Press one of the B-bus Selection Buttons.

4 Operate the Mix/Wipe Control.

C. Video Wipe



Reset the operation panel to initial mode.

1 Press one of the A-bus Selection Buttons.

2 Press one of the B-bus Selection Buttons.

3 Operate the Mix/Wipe Control.

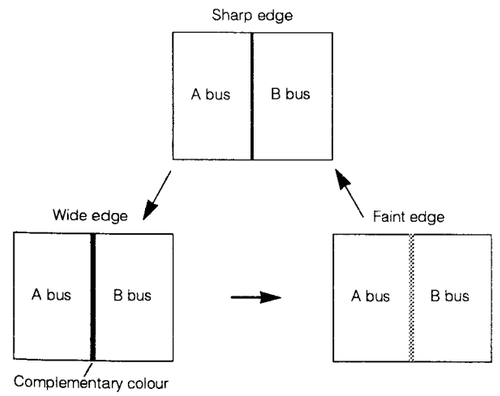
■ Wipe Edge

Press the WIPE/EDGE button repeatedly.

Three kinds of edges are available:

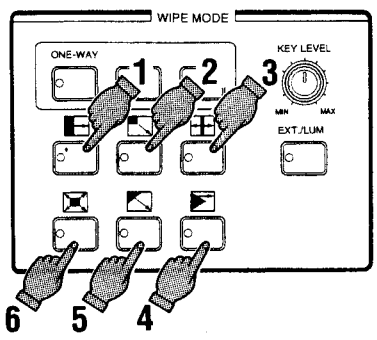
Sharp edge, Wide edge, Faint edge

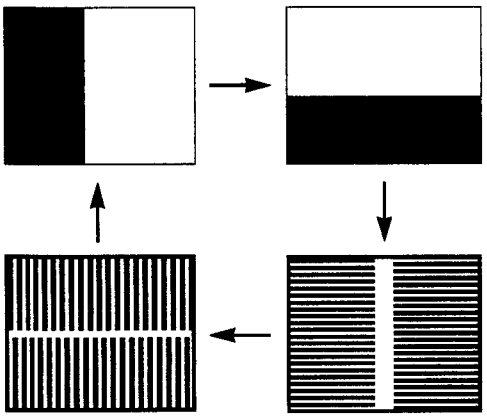
Note: If the Wide edge is selected, you can add a complementary back colour to the edge using the Back Colour Selection Buttons.



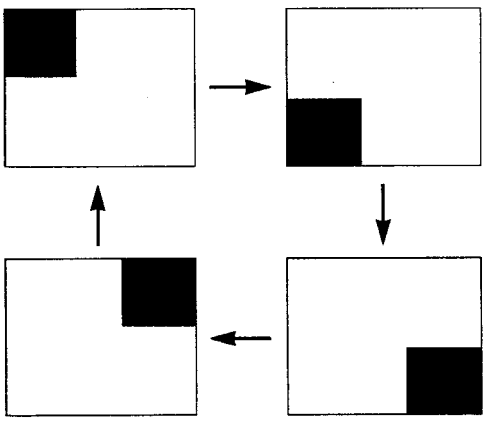
■ Wipe Pattern Selection

Select one of the wipe patterns.

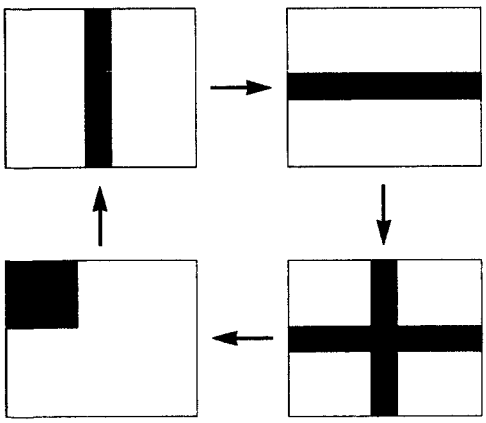




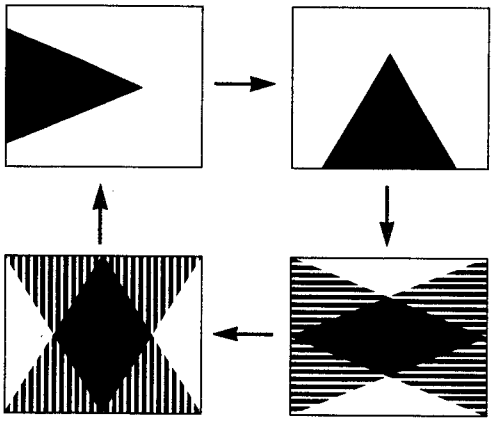
1 Press the Straight Wipe Button repeatedly.
Four patterns are available.



2 Press the Corner Wipe Button repeatedly.
Four patterns are available.

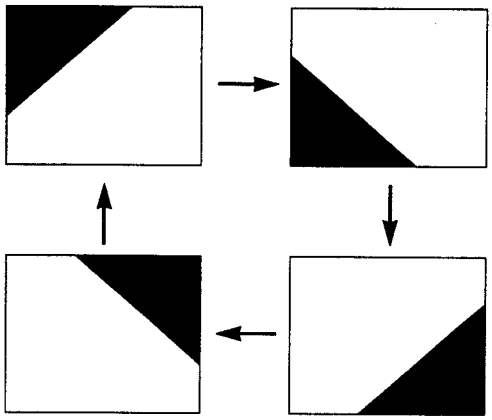


3 Press the Split Wipe Button repeatedly.
Four patterns are available.



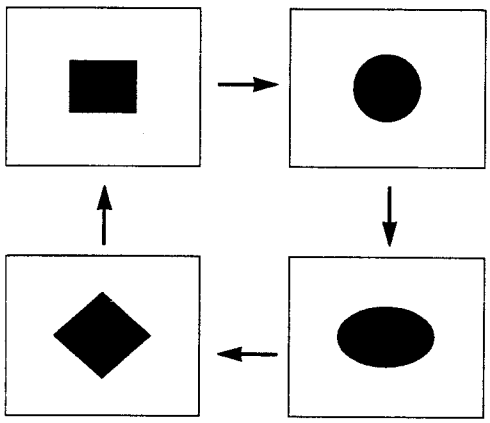
4 Press the Triangle Wipe Button repeatedly.

Four patterns are available.



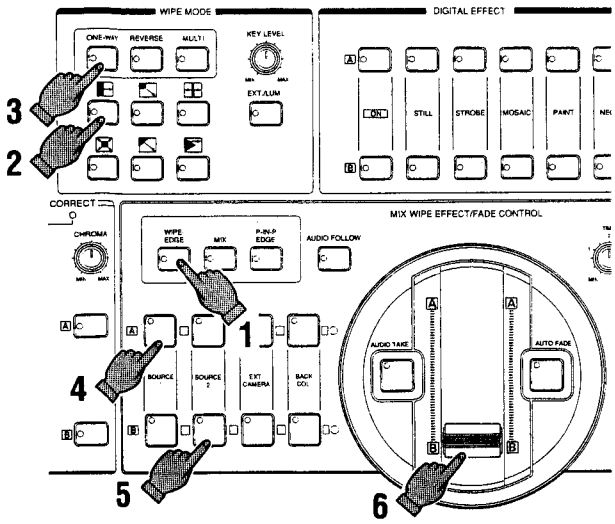
5 Press the Diagonal Wipe Button repeatedly.

Four patterns are available.



6 Press the Square Wipe Button repeatedly.

Four patterns are available.



■ One-way Wipe

1 Press the WIPE/EDGE button.

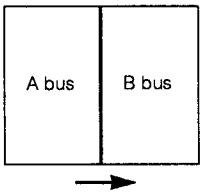
2 Press the Straight Wipe Button, for example.

3 Press the ONE-WAY button.

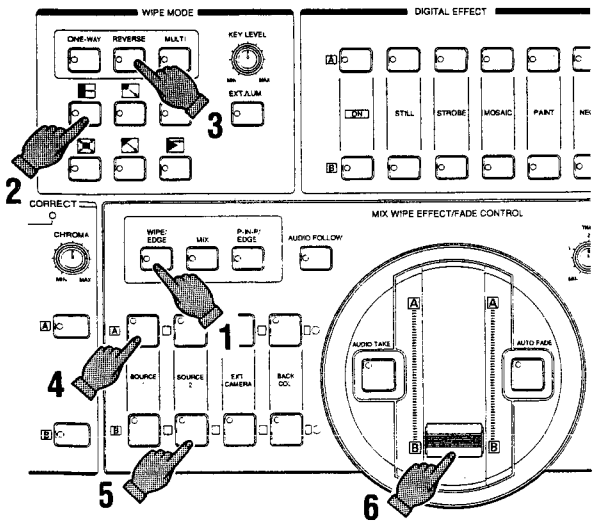
4 Press one of the A-bus Selection Buttons.

5 Press one of the B-bus Selection Buttons.

6 Operate the Mix/Wipe Control.



The wipe scene moves the same way every time the control is operated.



■ Reverse Wipe

1 Press the WIPE/EDGE button.

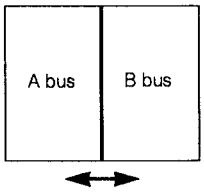
2 Press the Straight Wipe Button, for example.

3 Press the REVERSE button.

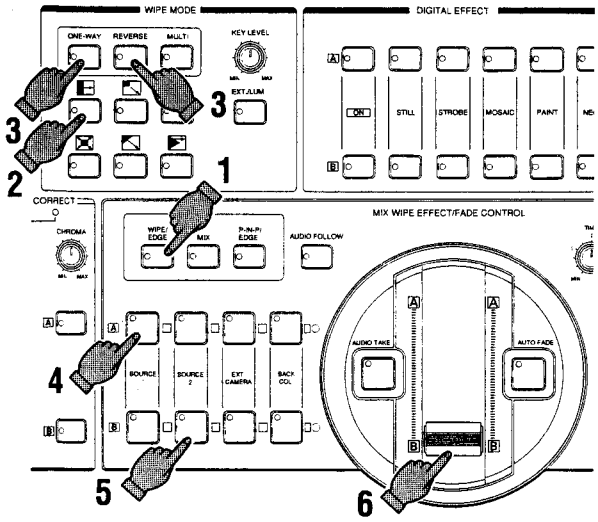
4 Press one of the A-bus Selection Buttons.

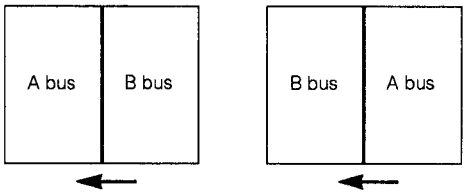
5 Press one of the B-bus Selection Buttons.

6 Operate the Mix/Wipe Control.



The wipe scene moves in the reverse direction every time the control is operated.





■ One-way and Reverse Wipe

1 Press the WIPE/EDGE button.

2 Press the Straight Wipe Button, for example.

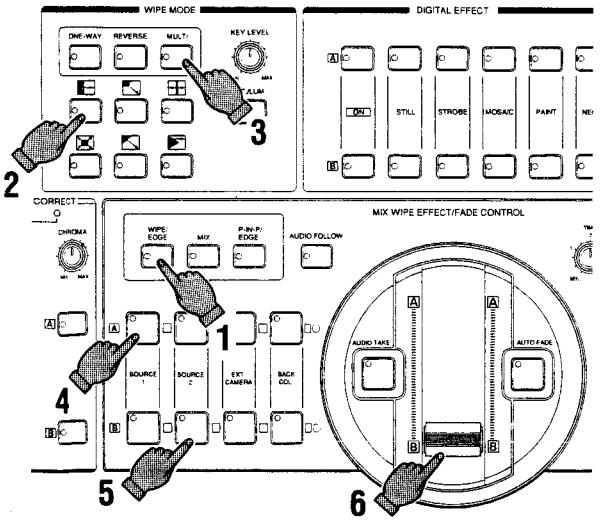
3 Press both the ONE-WAY button and REVERSE button.

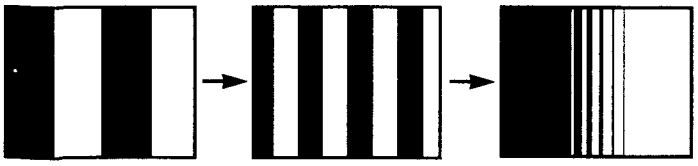
4 Press one of the A-bus Selection Buttons.

5 Press one of the B-bus Selection Buttons.

6 Operate the Mix/Wipe Control.

Symmetrical scene wipe is available





■ Multiple Wipe

1 Press the WIPE/EDGE button.

2 Press the Straight Wipe Button, for example.

3 Press the MULTI button repeatedly to have the desired multiplication.

4 Press one of the A-bus Selection Buttons.

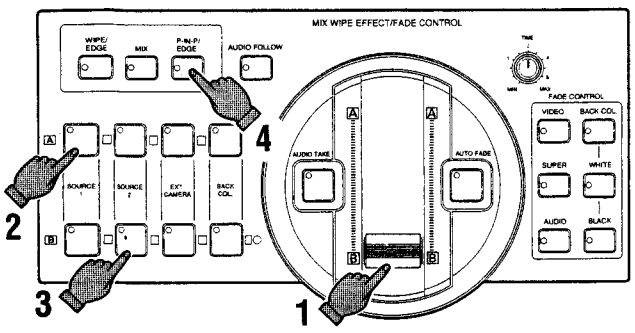
5 Press one of the B-bus Selection Buttons.

6 Operate the Mix/Wipe Control.

Refer to the Wipe Pattern Table on page 33 for the multiple wipe pattern variations.

Note: Any combination of the ONE-WAY, REVERSE and MULTI buttons is possible.

D. Picture-In-Picture



A single squeezed picture or double squeezed pictures can be inserted in the screen. Four kinds of Picture-In-Pictures are available as follows.

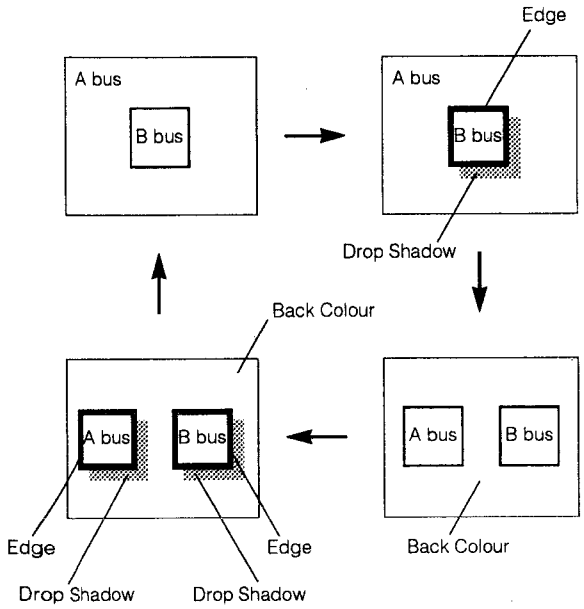
Reset the operation panel to initial mode.

1 Slide the Mix/Wipe Control fully to the B-bus position.

2 Press one of the A-bus Selection Buttons.

3 Press one of the B-bus Selection Buttons except BACK COL. buttons.

4 Press the P-IN-P/EDGE button.

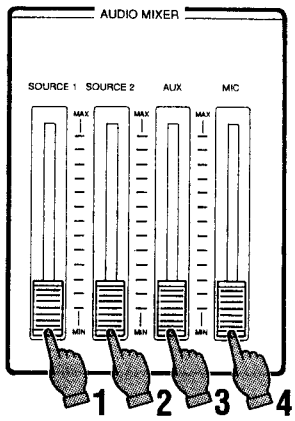


Picture-In-Picture mode changes by pressing this button repeatedly as shown.

Notes:

1. The colour of the Edge can be changed by operating Back Colour Select Button (36). The complementary colour will be added.
2. The BACK COL. button for the B-bus cannot be selected in Single Picture-In-Picture mode. The BACK COL. button for both the A-bus and B-bus cannot be selected in Double Picture-In-Picture mode.
3. When you slide the Mix/Wipe Control to the A-bus position, the P-IN-P picture dissolves into the back ground scene.

E. Audio Mix



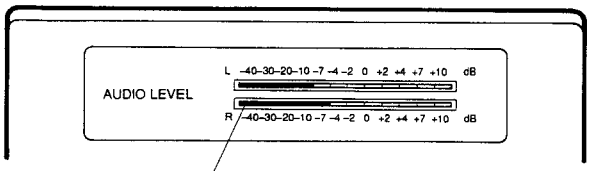
There are four audio source inputs on the WJ-AVE7: Source 1, Source 2, Auxiliary and Microphone. Each audio level can be adjusted independently by the audio fader.

1 Adjust the SOURCE 1 fader.

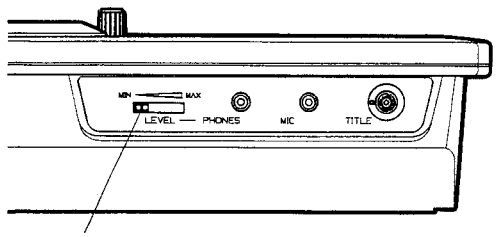
2 Adjust the SOURCE 2 fader.

3 Adjust the AUX fader.

4 Adjust the MIC fader.



Indicates the level of Audio Mixer



Headphone Audio Level Control

Notes:

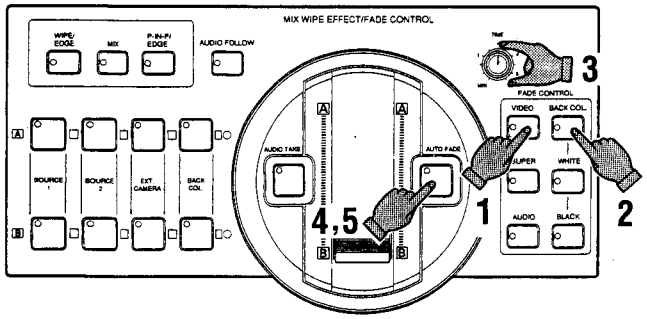
1. The AUDIO LEVEL indicator on the panel displays the mixing level of four audio signals.

2. The headphone audio does not mix with the other audio signals. The level of headphone audio can be adjusted by the Headphone Level Control on the front panel.

F. Fade

1. Synchronized fade permits Video (VIDEO), Superimpose (SUPER) and Audio (AUDIO) fades together or in any combination. Each of these three can be controlled by the AUTO FADE control.
2. Video Fade can fade-out (or in) to (or from) one of the following: Back Colour (BACK COL.), White Colour (WHITE) or Black Colour (BLACK)
3. Superimpose Fade can fade-out (or in) the superimposed portion of the picture.
4. Audio Fade can fade-out (or in) the audio.
5. Fade transition time can be adjusted by the TIME Control from 0 to 10.2 seconds.

Reset the operation panel to initial mode.



■ Video Fade

The pictures selected by the A-bus and B-bus Selection Buttons fade. An example of fade operation is shown below.

1 Press the VIDEO button.

2 Press the BACK COL. button.

Note: Select the desired colour in the BACK COL.section.

3 Adjust the TIME Control.

4 Press the AUTO FADE button.

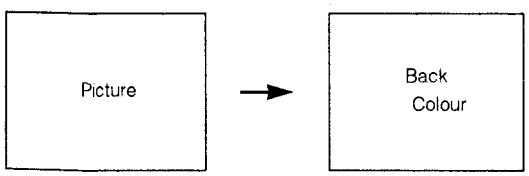
The picture start fading-out to the Back Colour.

Notes:

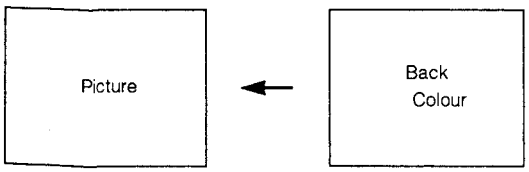
1. If you press the AUTO FADE button again before the fade is over, the fade stops. The LED's for both AUTO FADE button and VIDEO button start blinking. Press the button again to start the fade again.
2. After fade-out is completed, the LED on the AUTO FADE button only remains blinking.

5 Press the AUTO FADE button again.

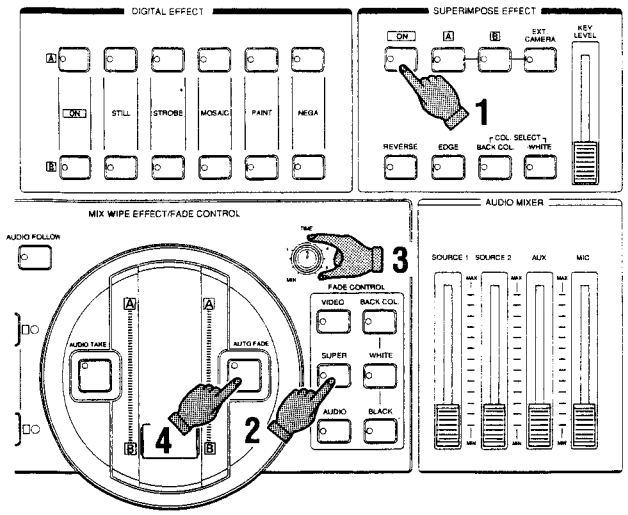
The picture starts fading in from the Back Colour.

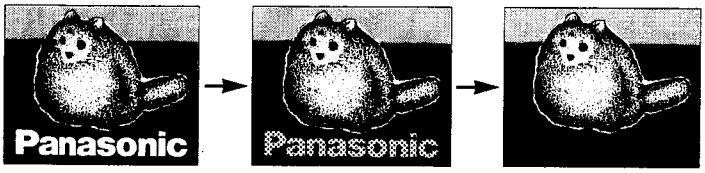


fade-out



fade-in





■ Superimpose Fade

Only the superimposed portion fades out. Before starting this operation, refer to the Superimpose Effect on page 25 for setting up the superimpose effect.

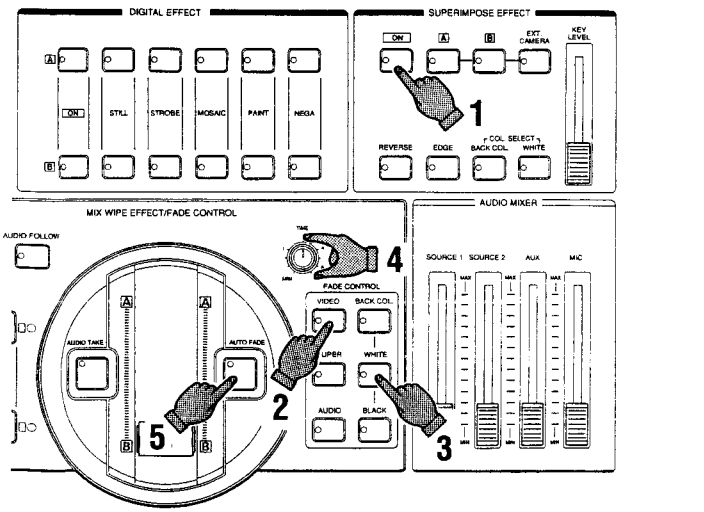
1 Press the ON-button.

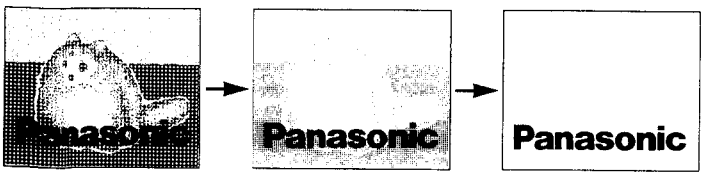
2 Press the SUPER button.

3 Adjust the TIME control.

4 Press the AUTO FADE button.

Note: Refer to the Note on Video Fade for Auto Fading.





■ Video Fade with Superimpose Effect

This is an application of fade with the superimpose effect.

1 Press the ON button.

2 Press the VIDEO button.

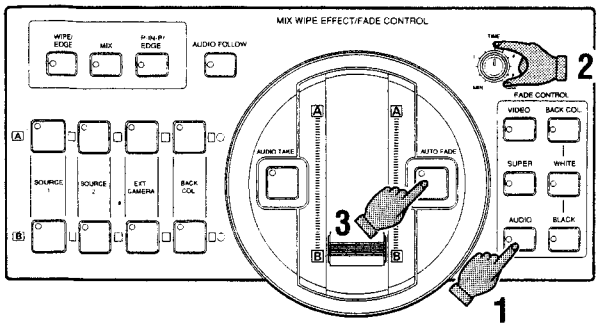
3 Press the WHITE button.

4 Adjust the TIME control.

5 Press the AUTO FADE button.

The back ground picture fades out to the white colour and the superimposed portion remains.

Note: Refer to the Notes on Video Fade and Superimpose Fade.



■ Audio Fade

The audio signals of the AUDIO MIXER section fade out.

1 Press the AUDIO button.

2 Adjust the TIME control.

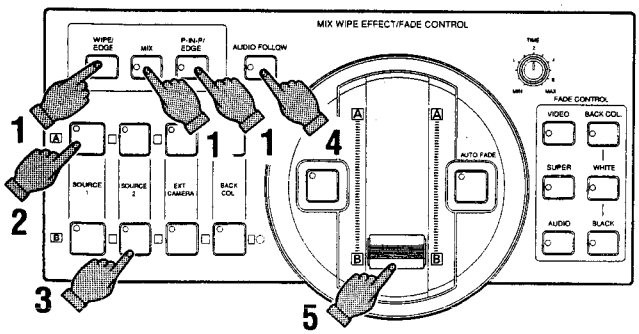
3 Press the AUTO FADE button.

Notes:

1. Refer to the Note on Video Fade.
2. The headphone audio will not fade.

G. Audio Follow

Audio can be processed either separately or in combination with a video source. Audio Follow provides automatic audio ratio mix between Source 1 and Source 2 inputs via the Mix/Wipe Control according to the ratio of Source 1 and Source 2 input.



Reset the operation panel to initial mode.

1 Press one of the WIPE/EDGE, MIX and P-IN-P/EDGE buttons.

Note: Refer to P-IN-P/EDGE operation on page 17.

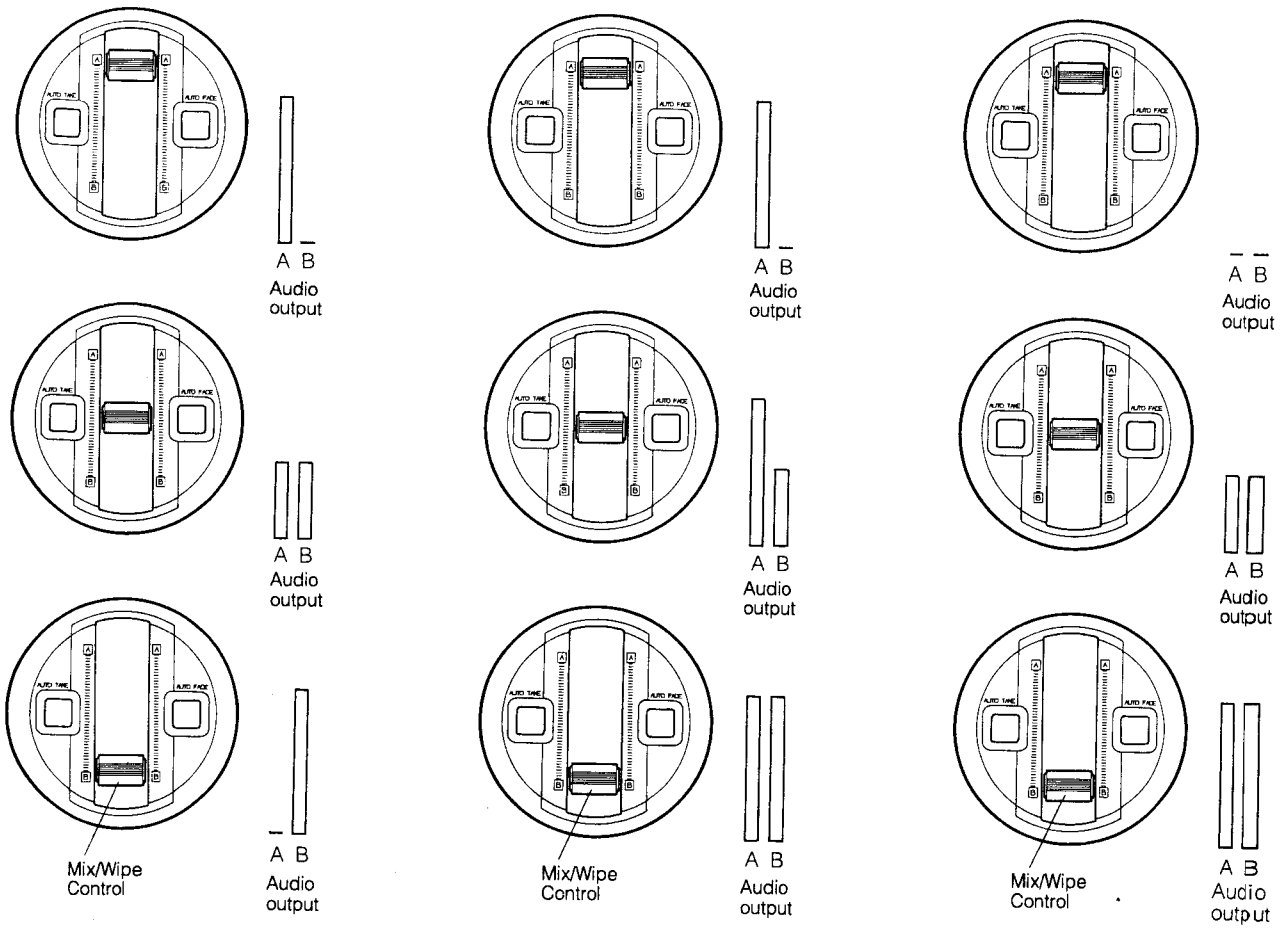
2 Press the SOURCE 1 button for the A-bus.

3 Press the SOURCE 2 button for the B-bus.

4 Press the AUDIO FOLLOW button.

5 Slide the Mix/Wipe Control.

- **Without Picture-in-Picture mode**
- **Single Picture-in-Picture mode**
- **Double Picture-in-Picture mode**



Notes:

1. Make sure that the Audio Faders of SOURCE 1 and SOURCE 2 in the AUDIO MIXER section are at the correct level.
2. If the AUX audio and MIC audio inputs are used, they are controlled directly by their respective faders in the AUDIO MIXER section, -i.e. they are free of control by the Audio Follow function.

ADVANCED OPERATIONS

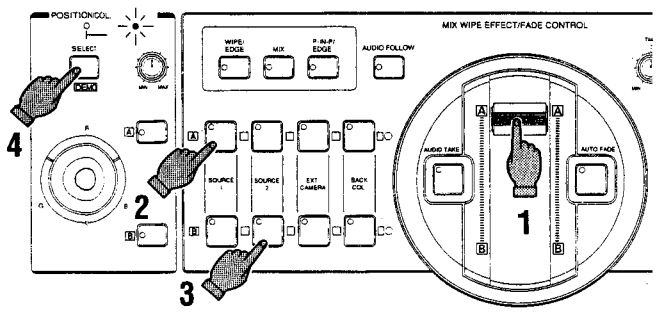
A. Colour Correction

This function allows colour adjustment of a selected input source, as well as compensation for excessive colour.

Notes:

1. The Chroma Level Control (CHROMA) will have no effect if the selected source video is a black/white picture.
2. The same colour correction should be made on both the A-bus and B-bus pictures.

Reset the operation panel to initial mode.



■ To correct the colour of the A-bus picture

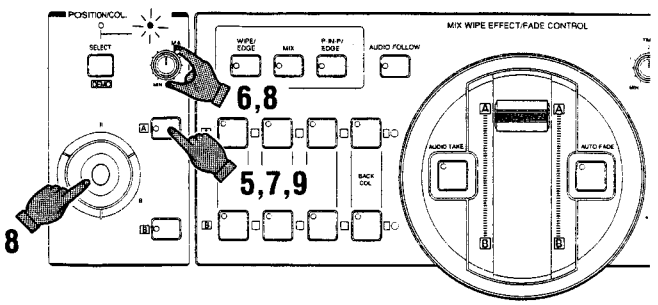
1 Slide the Mix/Wipe Control to the A-bus position.

2 Press one of the A-bus Selection Buttons.

3 Press one of the B-bus Selection Buttons.

4 Press the SELECT button.

The LED on the COL.CORRECT position should light.



5 Press the A button once.

The LED starts blinking.

6 Adjust the CHROMA Control.

The colour level can be changed.

7 Press the A button again.

The LED lights steadily.

8 Adjust the CHROMA Control and operate the Joystick Control.

The colour level (CHROMA) and colour phase (R/G/B) can be adjusted.

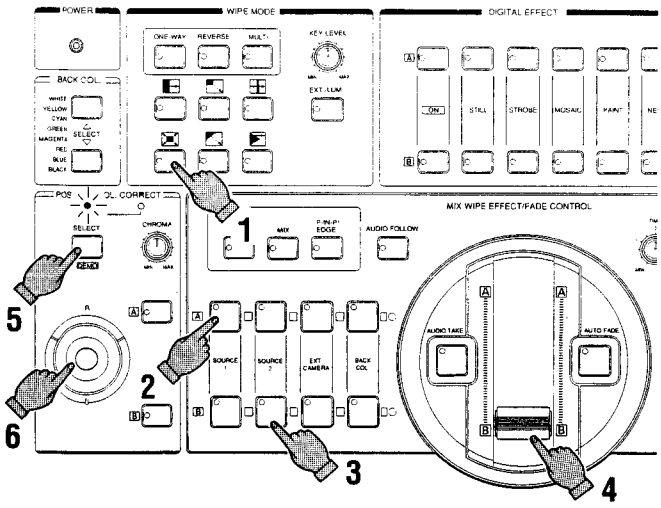
9 Press the A button a third time.

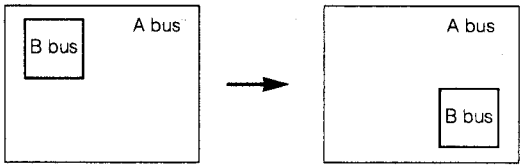
The LED goes out and Colour Correction can be released.

Note: Position A of the picture is stored in the memory while colour correction is under way. Refer to B. Position Control below.

B. Position Control

The position of the P-IN-P picture and the Square Wipe picture can be changed on the monitor screen using this function.





■ Square Wipe picture

Reset the operation panel to initial mode.

1 Press the Square Wipe Button.

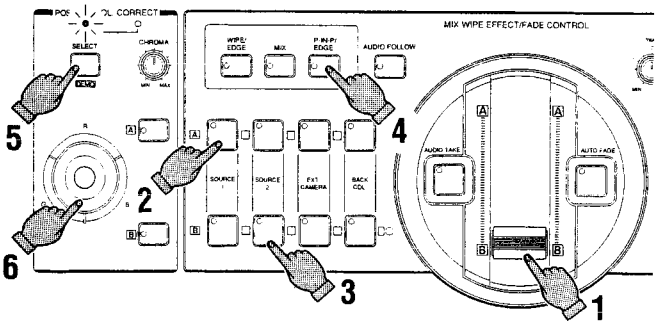
2 Press the one of the A-bus Selection Buttons.

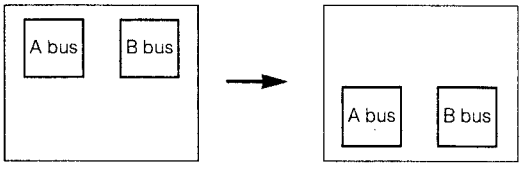
3 Press the one of the B-bus Selection Buttons.

4 Slide the Mix/Wipe Control to have Square Wipe picture.

5 Press the SELECT button.
The LED on the POSITION side should light.

6 Operate the Joystick Control.





■ P-IN-P picture

Reset the operation panel to initial mode.

1 Slide the Mix/Wipe Control fully to the B-bus position.

2 Press the SOURCE 1 button on the A-bus Selection Buttons.

3 Press the SOURCE 2 button on the B-bus Selection Buttons.

4 Press the P-IN-P/EDGE button.

5 Press the SELECT button.
The LED on the POSITION side should light.

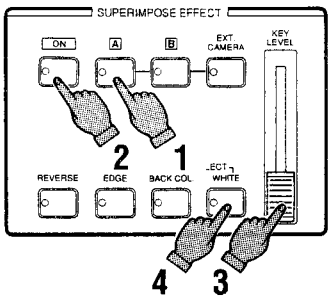
6 Operate the Joystick Control.

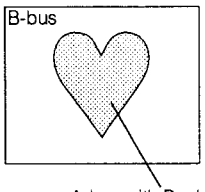
Notes:

1. In Double Picture-In-Picture mode, the position control operates in the vertical direction only.
2. The status of Colour Correction is stored in the memory, while the position control is being operated. Refer to A. Colour Correction.

C. Superimpose Effect

The Superimpose Effect adds an effect to the present picture.





A-bus with Back Colour
or White Colour

■ A-bus Superimpose

Reset the operation panel to initial mode.

1 Press the A button.

2 Press the ON button.

The Superimpose Effect is activated.

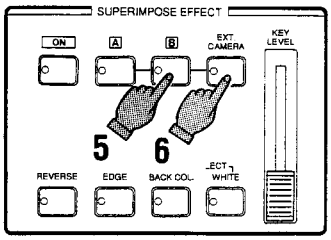
3 Adjust the KEY LEVEL.

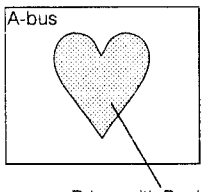
A back colour is added to the dark part of the A-bus picture.

Note: Select the desired back colour in the BACK COL. section.

4 Press the WHITE button.

The back colour changes to white.



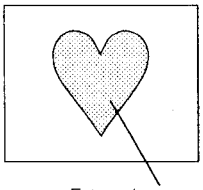


B-bus with Back Colour
or White Colour

■ B-bus Superimpose

5 Press the B button.

A back colour or white is added to the dark part of the B-bus picture. All other operations and effects are the same as in A-bus Superimpose.

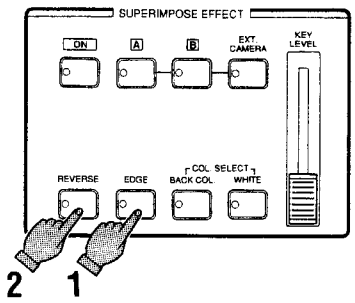


External camera with
Back Colour or White Colour

■ External Camera Superimpose

6 Press the EXT. CAMERA button.

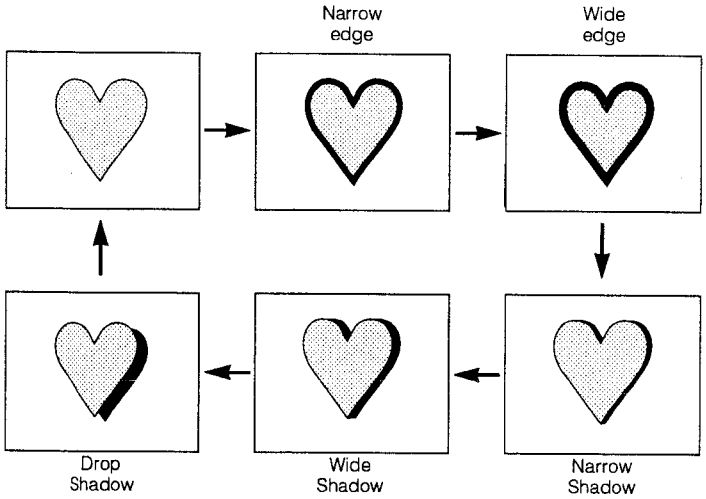
A back colour or white is added to the dark part of the External Camera picture. All other operations and effects are the same as in A-bus Superimpose.



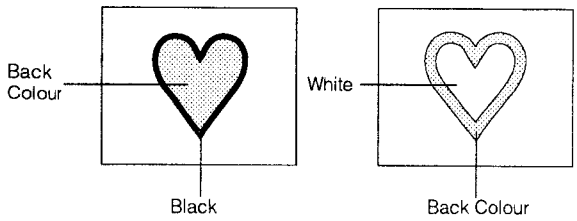
■ Edge and Reverse

Obtain any of the above Superimposed pictures.

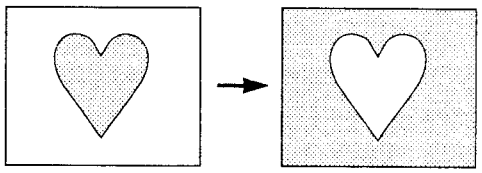
1 Press the EDGE button repeatedly.



(1) Five kinds of edges can be added to a superimposed picture: narrow edge, wide edge, narrow shadow, wide shadow and drop shadow.



(2) In case a Back Colour is selected for superimpose, the edge colour is always black. If white is selected, the complementary back colour is added to the edge.



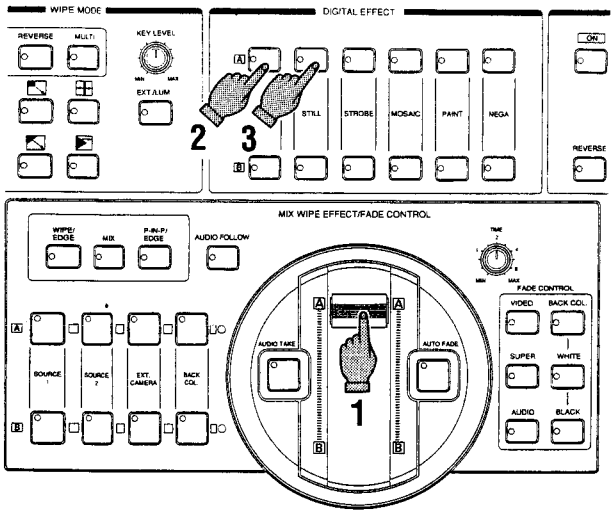
2 Press the REVERSE button.

The superimposed picture and the background picture will be reversed in position.

D. Digital Effect

The following is a detailed description of the function of DIGITAL EFFECT section which generates digital special effects for the A bus and B-bus source video signals.The selected effect(s) can be added to either the A-bus or B-bus at one time.

Reset the operation panel to initial mode.

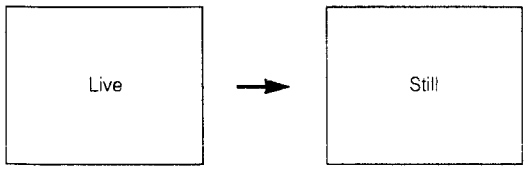


■ Digital Effect for A-bus picture

1 Slide the Mix/Wipe Control fully to the A-bus position.

2 Press the ON button (A-bus).

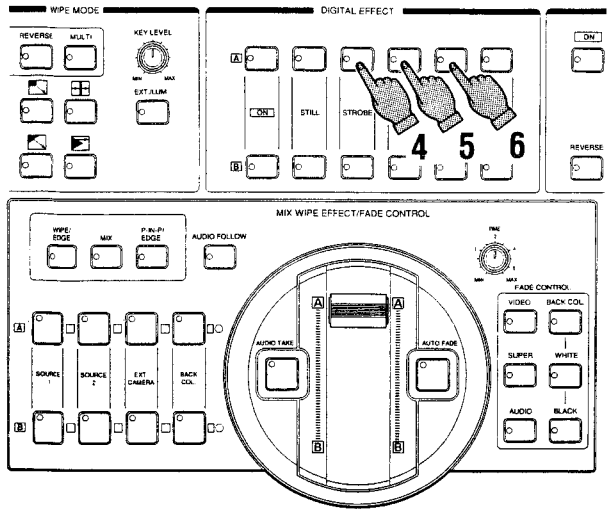
This button adds the digital effect to the A-bus picture.



■ Still

3 Press the STILL button.

A frozen picture is obtained.



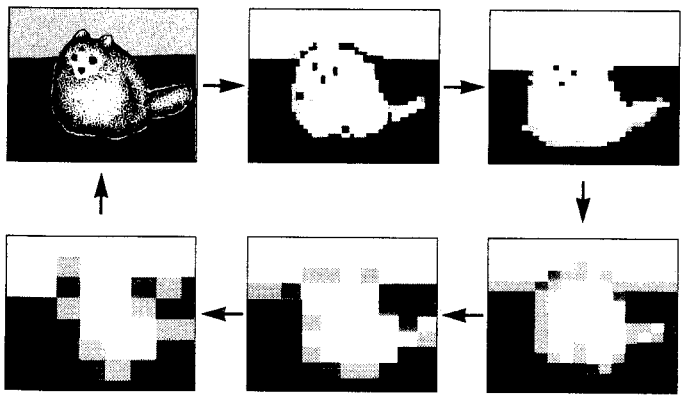
■ Strobe

4 Press the STROBE button.

Stroboscopic pictures like a series of still pictures are produced in slow motion.

Strobe intervals can be changed by pressing this button repeatedly.

1st push - 0.18 sec.
2nd push - 0.46 sec.
3rd push - 1.18 sec.
4th push - 1.66 sec.
5th push - 2.50 sec.

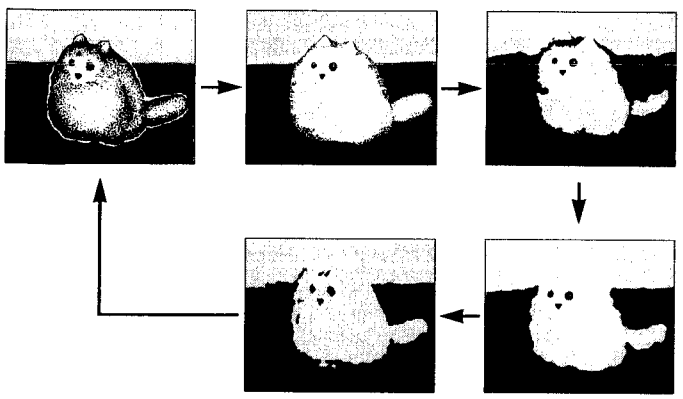


■ Mosaic

5 Press the MOSAIC button.

A mosaic-like or box-like pattern is obtained.

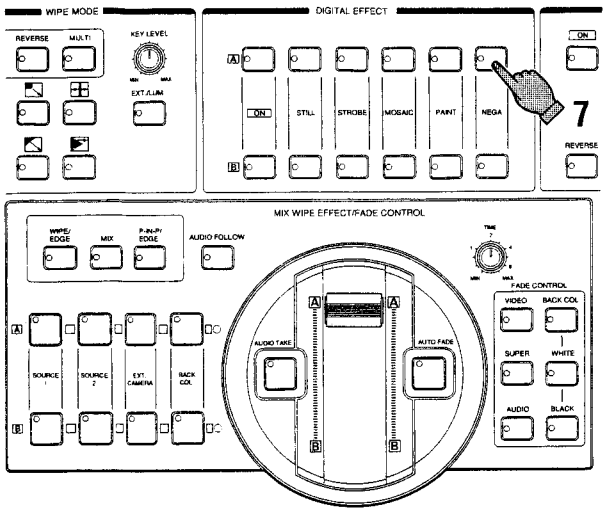
Mosaic pattern size can be changed in five steps by pressing this button repeatedly.



■ Paint

6 Press the PAINT button.

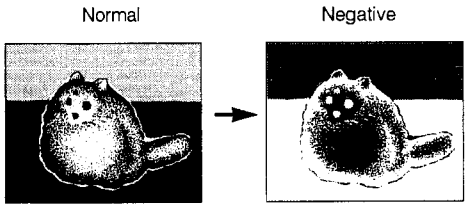
An oil-paint touch picture can be obtained. The graduation level of simulated paint can be changed in four steps by pressing this button repeatedly.



■ Negative

7 Press the NEGA button.

A negative picture is obtained.

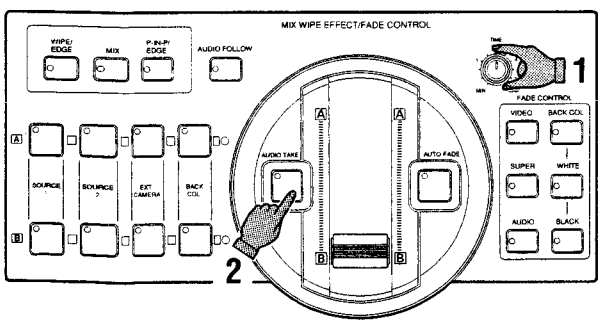


Notes:

1. Still and Strobe modes cannot be selected at the same time on the same bus.
2. If picture size is changed by operating the P-IN-P/EDGE button, Still or Strobe mode of the respective buses will be released. This occurs when the MIX or WIPE/EDGE button is pressed after the P-IN-P/EDGE button, or when the P-IN-P/EDGE button is pressed after the WIPE/EDGE or MIX button.

E. Auto Take

Instead of the slide controlled Mix and Wipe using the Mix/Wipe Control, automatic Mix and Wipe operation can be performed using the Auto Take function.



Reset the operation panel to initial mode.

1 Set a transition time by adjusting the TIME control.

Transition time can be adjusted from 0 to 10.2 sec. approximately.

2 Press the AUTO TAKE button.

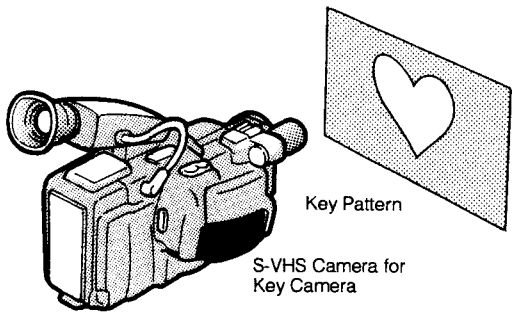
The LED lights. After Auto Take, the LED goes out.

Notes:

1. If you press the button before Auto Take is completed, it stops and the LED starts blinking. If you want to start it again, press the button again.
2. To release Auto Take mode, slide the Mix/Wipe Control fully to either the A-bus or B-bus position.

F. External/Luminance Key

This function is used to insert a picture into the key picture.



Setting up of the key camera.

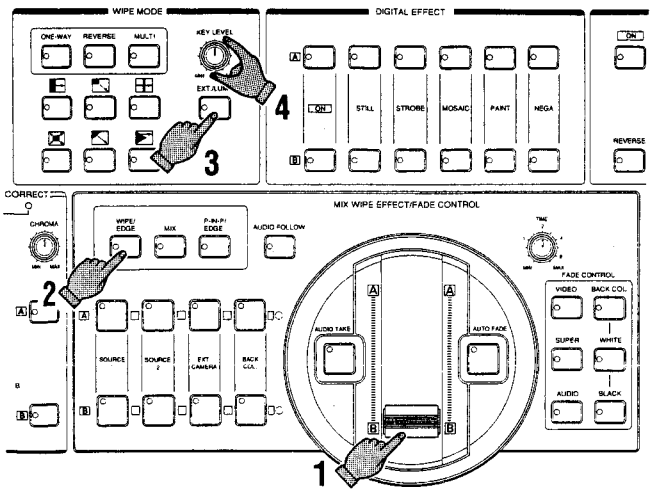
Connect the camera to the EXT CAMERA connector on the WJ-AVE7.

Refer to System Connection on page 9.

Shoot a black and white object with the camera.

Reset the operation panel to initial mode.

■ External Key



1 Slide the Mix/Wipe Control fully to the B-bus position.

2 Press the WIPE/EDGE button.

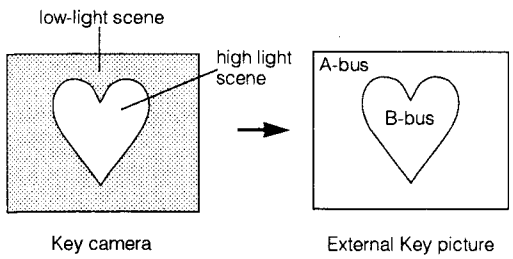
3 Press the EXT/LUM button once.

The LED lights.

4 Adjust the KEY LEVEL control.

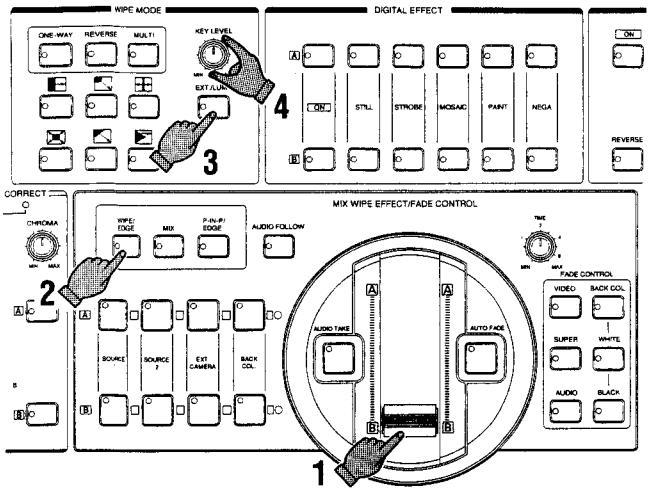
The B-bus picture is inserted into the bright part of the external camera picture and the A-bus picture into the dark part of the external camera picture.

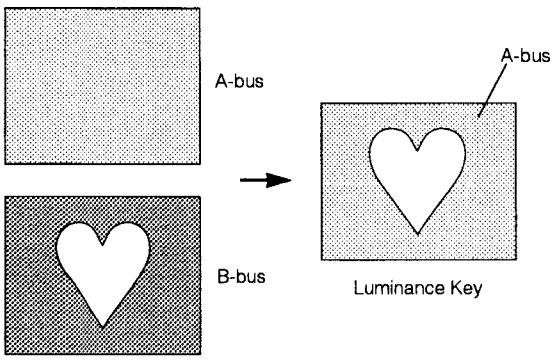
Note: When you slide the Mix/Wipe Control to the A-bus position, the External Key picture is dissolved.



Key camera

External Key picture





■ Luminance Key

1 Slide the Mix/Wipe Control fully to the B-bus position.

2 Press the WIPE/EDGE button.

3 Press the EXT/LUM button twice.

The LED blinks.

4 Adjust the KEY LEVEL control.

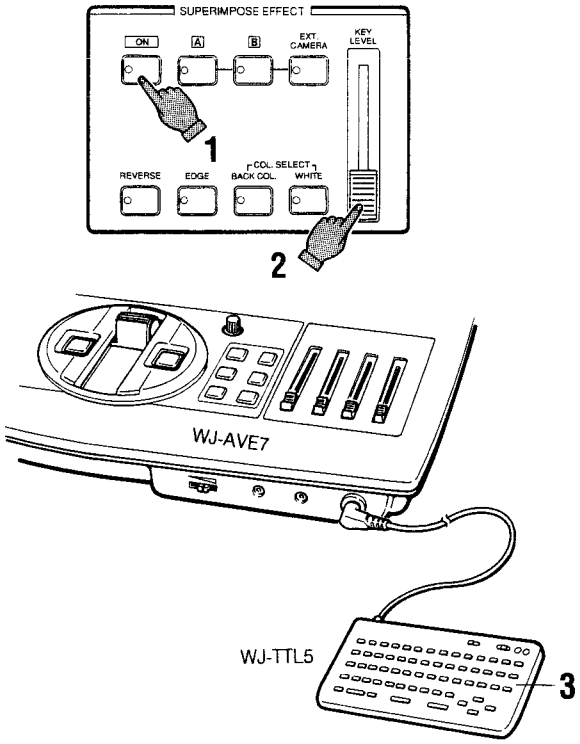
The bright part of the B-bus picture is inserted into the A-bus picture.

Note: When you slide the Mix/Wipe Control to the A-bus position, the inserted picture is dissolved.

To release External/Luminance Key mode, press one of the Wipe Pattern Buttons.

G. Titler

Connect the optional Character Generator WJ-TTL5 to the TITLE connector on the front panel.



1 Press the ON button in the SUPERIMPOSE EFFECT section.

2 Slide the KEY LEVEL control all the way down.

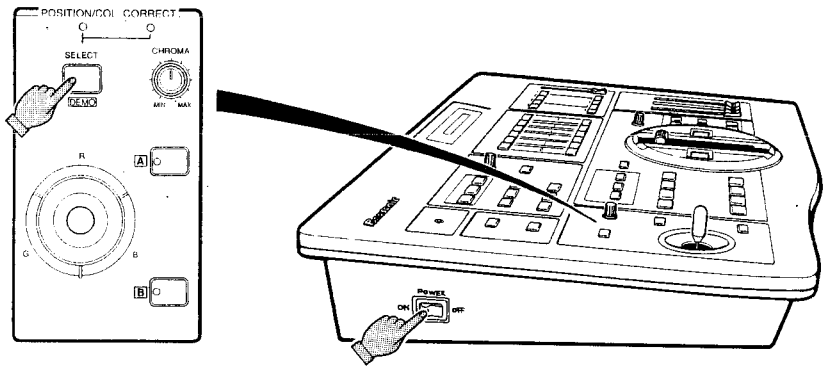
3 Operate the Character Generator.

To release this function, press the ON button again or disconnect WJ-TTL5 from WJ-AVE7.

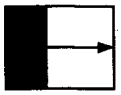
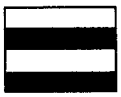
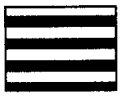
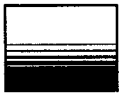
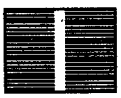
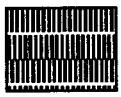
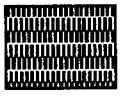
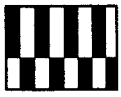
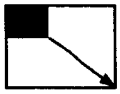
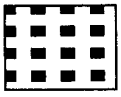
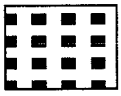
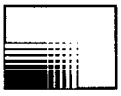
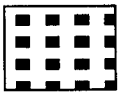
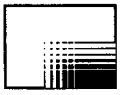
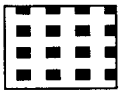
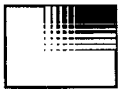
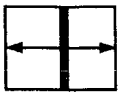
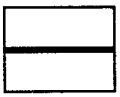
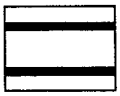
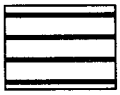
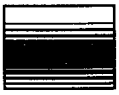
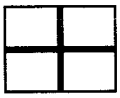
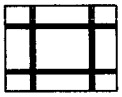
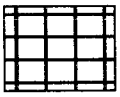
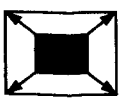
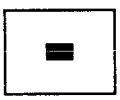
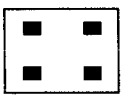
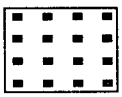
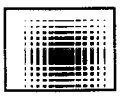
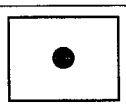
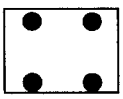
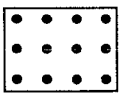
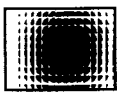
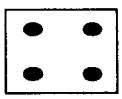
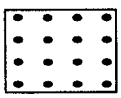
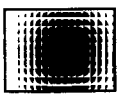
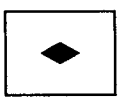
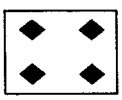
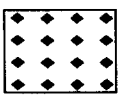
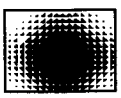
Demonstration

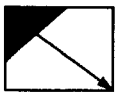
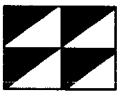
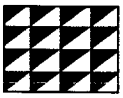
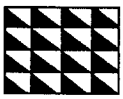
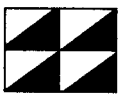
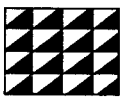
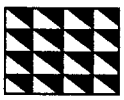
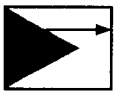
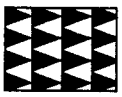
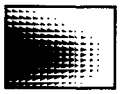
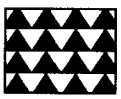
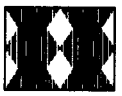
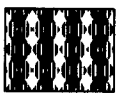
The preprogrammed demonstration of the built-in Effect functions of the WJ-AVE7 is automatically displayed on an attached video monitor.

- Press the power switch on while keeping the DEMO button depressed.



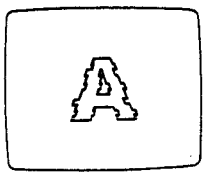
Wipe Pattern Table

Wipe Patterns	Times of Pressing Button	Basic		MULTI 1		MULTI 2		MULTI 3 (Blinds)	
		NOR	REV	NOR	REV	NOR	REV	NOR	REV
	1 time								
	2 times								
	3 times								
	4 times								
	1 time								
	2 times								
	3 times								
	4 times								
	1 time								
	2 times								
	3 times								
	4 times								
	1 time								
	2 times								
	3 times								
	4 times								

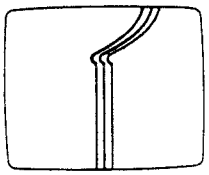
Wipe Patterns	Times of Pressing Button	Basic		MULTI 1		MULTI 2		MULTI 3 (Blinds)	
		NOR	REV	NOR	REV	NOR	REV	NOR	REV
	1 time								
	2 times								
	3 times								
	4 times								
	1 time								
	2 times								
	3 times								
	4 times								

Important Notes on Video Input Signal

(1) If the input video signal does not meet the PAL colour standard, it can cause a disturbance in synchronization.
(2) If the signal-to-noise ratio (S/N) of the input signal is too low, it may result in a low quality picture.
(3) A jittery source input video signal from a VTR, for example, can cause a disturbance in synchronization or colour.
(4) Tracking noise on the TV monitor can cause a disturbance in synchronization. It is necessary to adjust the tracking control of the input VTR.
(5) When either a character generator signal or character from a key camera is supplied, the edge of the character might become rough as shown under certain electronic conditions.



(6) Flag waving (top of picture curls) may appear due to AFC time constant when input signals are supplied from a certain type of VTR.



(7) The External Camera signal supplied to the EXT CAMERA input connector is used as the reference sync signal for the WJ-AVE7. If this signal is jittery, as in VTR playback, it can cause a disturbance in synchronization.
(8) Wipe in circle wipe mode has a zigzag edge, but it is normal, not a sign of failure.
(9) In case a video signal with a VITC-signal (Time Code) is supplied to the unit, no VITC-signal is available at the Recording Output.

Glossary

Luminance: The black/white component of a video signal
Chrominance (Chroma): The colour component of a video signal
Colour Phase: Hue. The R/G/B signals can be changed by adjusting their Colour Phase.
R/G/B: Red, Green, Blue signals
Key: To shape the bright or dark portion in a picture
Composite Video Signal: Standard video signal
S-Video Signal: A signal at the S-VHS connector

SPECIFICATIONS

Models:	WJ-AVE7/A; for Australia
	WJ-AVE7/B; for U.K. (United Kingdom)
	WJ-AVE7/G; for Europe Others
	WJ-AVE7/C; for PAL other countries
Source Input:	X2 (SOURCE 1/2)
Video Input:	1.0Vp-p/75ohms PAL composite signal, pin-jacks
Y/C Input:	Y signal; 1.0Vp-p/75ohms, C signal; 0.3Vp-p/75ohms Mini Din 4 pin connector
Audio Input:	–6dBs/20kohms pin jacks (L/R)
External Camera Input:	X1 (EXT CAMERA)
Video Input:	1.0Vp-p/75ohms PAL composite signal, pin-jack
Y/C Input:	Y signal; 1.0Vp-p/75ohms, C signal; 0.3Vp-p/75ohms Mini Din 4 pin connector
External Sound Input:	
Mic Input:	X1 (MIC); –60dBv/600ohms, unbalanced, tip-ring-sleeve type phone jack
Aux.Input:	X1 (AUX); –6dBs/20kohms, pin jacks (L/R)
Character Input:	X1 (TITLE); 10-pin connector for optional Character Generator WJ-TTL5
Recording Output:	X2 (REC OUT 1/2)
Video Output:	1.0Vp-p/75ohms PAL composite signal, pin-jacks
Y/C Output:	Y signal; 1.0Vp-p/75ohms, C signal; 0.3Vp-p/75ohms Mini Din 4 pin connector
Audio output:	–6dBV/1kohms, pin jacks (L/R)
Monitor Output:	X2 (MONITOR OUT); 1.0Vp-p/75ohms PAL composite signal, pin-jacks
Headphone Output:	X1 (HEADPHONE); –20dBv - –80dBv, 8ohms unbalanced, tip-ring-sleeve type phone-jack
Effects:	
Video:	Still, Strobe, Mosaic, Paint, Negative, Wipe, Mix, Superimpose, Fade, Picture-In-Picture, Colour Correction
Audio:	Mix, Fade
Back Colour:	White, Yellow, Cyan, Green, Magenta, Red, Blue, Black
Wipe Patterns:	96 patterns
Others:	One-way, Reverse, Multi, Position
Video Gain:	Unity
S/N (typical):	Video; 48dB (composite), 48dB (Y/C)
	Audio; 60dB
Power Source:	220-240VAC, 50Hz
Power Consumption:	Approx. 18 Watts
Ambient Operating Temperature:	0°C - 40°C
Ambient Operating Humidity:	Less than 90%
Dimensions:	480(W) X 85(H) X 320(D) mm
	[18-7/8"(W) X 3-3/8"(H) X 12-5/8"(D)]
Weight:	3.0 kg (6.6 lbs.)

Weight and dimensions indicated above are approximate.
Specifications are subject to change without notice.

Standard Accessory

Power Cord ..... 1pc.

Optional Accessory

Character Generator WJ-TTL5